



## MEMORANDUM

**To:** Scott R. Tess, Sustainability & Resilience Officer  
**FROM:** Andrew Stumpf, Member, Sustainability Advisory Commission  
**DATE:** September 5, 2022  
**RE:** Subtitle D—Energy Security (Part 1—Clean Electricity and Reducing Carbon Emissions) of the H.R. 5376 “*Inflation Reduction Act of 2022*”: Geothermal Energy

### Background and Facts

New federal energy policy introduced in the Inflation Reduction Act of 2022\* represents an important milestone in U.S. energy policy. The federal incentives, tax credits, and stimulus are aimed at moving the nation’s economy away from emission-based heating and cooling, and towards one that utilizes low-carbon renewables and energy storage that includes geothermal heat pumps. The bill provides the following:

- Extends and increases the Investment Tax Credit (ITC) for residential geothermal heat pumps under Internal Revenue Code Section 25 (IRC §25D) to 30%, that were to expire in 2023 and continues them for the next 10 years and are equivalent to Production Tax Credit for solar and wind energy;
- Provides the ITC for commercial projects under Internal Revenue Code Section 48 (IRC §48) for geothermal heat pumps at a rate of 30% (if the project meets prevailing wage and apprenticeship requirements or achieves a maximum net output of less than 1 megawatt of equivalent thermal energy); if these requirements are not met, the rate drops to 6%.
- Introduces a new incentive structure for ITC rewarding projects that meet the following:
  - Domestic manufacturing requirements (**additional 10% bonus credit**);
  - Projects located in energy communities (**additional 10% bonus credit**);
  - Projects located in low-income communities or on Tribal land constructed after 2024 (**additional 10% bonus credit**);
  - Projects located in low-income residential buildings or part of low-income economic benefit projects constructed after 2024 (**additional 20% bonus credit**).
- Introduces direct pay and transfer options for the ITC. The direct pay option is available only to tax-exempt entities, state or local governments, or tribal governments;
- Creates a mechanism for thermal energy storage facilities that contract with tax-exempt and government entities to qualify for ITC and accelerated depreciation;
- The resulting credit may be reduced by up to 15% if tax-exempt bonds are used to finance a facility.

### \* Sources:

*Bipartisan Policy Center* <https://bipartisanpolicy.org/blog/inflation-reduction-act-summary-energy-climate-provisions/>

*National Law Review* <https://www.natlawreview.com/article/what-inflation-reduction-act-2022-means-renewable-energy-developers-investors-and-dla-piper> <https://www.dlapiper.com/en/us/insights/publications/2022/08/the-clean-energy-provisions-of-the-inflation-reduction-act-of-2022/>

*Norton Rose Fulbright* <https://www.projectfinance.law/tax-equity-news/qa-on-the-inflation-reduction-act#a1>



## MEMORANDUM

**To:** Scott R. Tess, Sustainability & Resilience Officer  
**FROM:** Grace Wilken, Member, Sustainability Advisory Commission  
**DATE:** September 10, 2022  
**RE:** Environmental and Climate Justice Block Grants section of the IRA (Title VI, Subtitle B- Hazardous Materials)

### Background and Facts

The Inflation Reduction Act (IRA) of 2022 aims to address inequities in environmental conditions in marginalized groups across the US. The act includes creating the Environmental and Climate Justice Block Grants with \$3 billion in funding to “invest in community led projects in disadvantaged communities to address public health harms and related pollution and climate change.”<sup>1,2</sup> The funding consists of \$2.8 billion in block grant funds, and \$200 million in technical assistance; all funds will remain available until September 2026.<sup>4</sup> Eligible entities include a community-based nonprofit organization, a partnership of community nonprofit organizations, or a partnership between both a community-based nonprofit and a local government, institution of higher education, or Indian tribe. Seven percent of grant award is intended to go towards administration costs.<sup>4</sup>

### Eligible activities include:

- “(A) community-led air and other pollution monitoring, prevention, and remediation, and investments in low- and zero-emission and resilient technologies and related infrastructure and workforce development that help reduce greenhouse gas emissions and other air pollutants;
- (B) mitigating climate and health risks from urban heat islands, extreme heat, wood heater emissions, and wildfire events;
- (C) climate resiliency and adaptation;
- (D) reducing indoor toxics and indoor air pollution; or
- (E) facilitating engagement of disadvantaged communities in State and Federal advisory groups, workshops, rulemakings, and other public processes.”<sup>4</sup>

The IRA, as a whole, is claimed to impact Illinois with lower energy costs, good-paying jobs, increased domestic manufacturing, cleaner air, resilient communities, incentives for purchasing electric vehicles (including used EVs), and tax credits for small businesses to improve energy efficiency, purchase of “clean” fueled vehicles, and renewable energy.<sup>3</sup>

*At this time, I can't find any information on how to apply, as this program still needs to be created. I plan to join a webinar on related topics later this week.*

- <sup>1</sup> Schowalter, J. M. and Montgomery, J. E. August 22, 2022. "Inflation reduction act commits significant resources to federal environmental justice efforts." The National Law Journal. <<https://www.natlawreview.com/article/inflation-reduction-act-commits-significant-resources-to-federal-environmental>>
- <sup>2</sup> The White House, Statements and Releases. August 17, 2022. "Fact Sheet: Inflation Reduction Act advances environmental justice." <<https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/17/fact-sheet-inflation-reduction-act-advances-environmental-justice/>>
- <sup>3</sup> The White House, Statements and Releases, Illinois Fact Sheet. August 17, 2022. "The Inflation Reduction Act delivers affordable clean energy for Illinois." <<https://www.whitehouse.gov/wp-content/uploads/2022/08/Illinois.pdf>>
- <sup>4</sup> US Congress. H.R.5376- Inflation Reduction Act of 2022. <<https://www.congress.gov/bill/117th-congress/house-bill/5376/text>>



## MEMORANDUM

**To:** Scott R. Tess, Sustainability & Resilience Officer  
**FROM:** Luke Westawker, Member, Sustainability Advisory Commission  
**DATE:** September 13, 2022  
**RE:** Subtitle D—Energy Security (Part 1—Clean Electricity and Reducing Carbon Emissions) of the H.R. 5376 “*Inflation Reductions Act of 2022*”

### Residential Clean Energy Credit

#### Background and Facts

The new federal energy policy introduced in the Inflation Reduction Act of 2022 (IRA)\* represents an important milestone in U.S. energy policy. This bill provides incentives to consumers to relieve the high costs of energy and decrease utility bills. This includes direct consumer incentives to buy energy efficient appliances, clean vehicles, and rooftop-solar, while improving home energy efficiency. A significant portion of the funding goes to lower income households and disadvantaged communities. The bill provides the following:

#### Tax Credits:

- Residential Clean Energy Tax Credit (Section 25D)
  - Extends credit through 2034 for residential solar, wind, geothermal, and biomass fuel.
  - Applies a 30% credit for projects started between 2022 and 2032. Credit decreases to 26% for projects started in 2033 and 22% for projects started in 2034.
  - Expands eligibility to battery storage technology.
- Energy Efficiency Home Improvements Tax Credit (Section 25C)
  - Extends credit for energy efficiency home improvements through 2032, including for rooftop solar panels and other consumer energy merchandise, such as heat pumps and electric HVAC systems and water heaters.
  - Increases credit from 10% to 30%, valued at around \$5,400 for solar panel installation.
  - Replaces lifetime cap on credits with a \$1,200 annual credit limit, including \$600 for windows and \$500 for doors. Increases limit to \$2,000 for heat pumps and biomass stoves.
  - Expands credit for home energy audits up to \$150 and electrical panel upgrades up to \$600.
  - Updates language for current technology and removes eligibility based on roofs.
- Clean Energy Vehicle Tax Credit
  - Provides up to \$4,000 in consumer tax credit for lower/middle income individuals to buy used clean vehicles, and up to \$7,500 tax credit to buy new clean vehicles starting in 2023.
  - In 2024, the credit will be issued through dealerships at the time of sale as long as the cars have final assembly in North America.

#### Rebate Programs:

- Home Energy Performance-Based Whole House Rebates (HOMES) Program

- Provides \$4.3 billion through 2031 to DOE for the HOMES rebate program to provide rebates to homeowners and aggregators for whole-house energy saving improvements.
- Additional funding can be provided to low- and moderate-income individuals, who earn less than 80% of the area median income.
- High-Efficiency Electric Home Rebate Program
  - Provides \$4.5 billion through 2031 for grants from DOE to States and Tribes to implement a high-efficiency electric home rebate program.
  - Provides up to \$14,000 per household including \$8,000 for heat pumps, \$1,750 for heat pump water heaters, \$840 for electric stoves, \$840 for electric heat pump dryers, and \$4,000 for an upgraded breaker box.
  - Includes rebates up to \$1,600 for improvements to home insulation or sealant
  - Eligible recipients must fall below 150% of the area median income.

**Grants:**

- Energy Efficiency Contractor Training Grant
  - \$200 million through 2031 for DOE to provide state energy offices with grants for the training of contractors to carry out energy efficiency upgrades, including those in the above residential energy efficiency incentives.

*\* Sources:*

*Bipartisan Policy Center <https://bipartisanpolicy.org/blog/inflation-reduction-act-summary-energy-climate-provisions/>*  
*Environmental Defense Fund <https://www.edf.org/article/8-ways-inflation-reduction-act-can-save-you-money>*  
*DLA Piper <https://www.dlapiper.com/en/us/insights/publications/2022/08/the-clean-energy-provisions-of-the-inflation-reduction-act-of-2022/>*



## MEMORANDUM

**To:** Scott R. Tess, Sustainability & Resilience Officer  
**FROM:** Stacy Gloss, Member, Sustainability Advisory Commission  
**DATE:** September 23, 2022  
**RE:** Alternative Fuel Refueling Property Credit of the H.R. 5376 “Inflation Reduction Act of 2022” (Commercial Properties)

### Alternative Fuel Refueling Property Credit

#### **Background and Facts**

The new federal energy legislation signed into law August 16, 2022, the Inflation Reduction Act of 2022 (IRA),\* represents an important milestone in U.S. energy policy. The introduced federal incentives, extension of tax credits, and stimulus is aimed at moving the American economy away from carbon emission-based heating and cooling; as well as strategies for decarbonizing the transportation sector. Transportation accounts for 27% of U.S. green house gas emissions.\*

The Sec. 30c Alternative Fuel Refueling Property Tax Credit primarily deals with vehicle charging stations in the commercial sector rather than at the house-hold level. The tax credit provides up to 30% of the cost of a “qualified alternative fuel vehicle refueling” station, subject to a limit of \$100,000 per station, effective for property placed in service after December 31, 2022. This credit is extended through 2032.

The Sec. 30c has some limitations. There is a 6% baseline with full 30% credit only if certain requirements are met including prevailing wage and apprenticeship requirements. Geographically, eligible EV charging stations need to be either in a low-income community defined in Section 45D(e) of the Internal Revenue Code of the or in a census tract that is not in an urban/metropolitan area.

Sec.30 allows for participation of tax-exempt entities. The company that sells the EV charging infrastructure to an applicable tax-exempt entity will be treated as the taxpayer eligible for the 30c credit as long as the full amount of the allowable credit is disclosed to the tax-exempt entity.

Commercial entities may also be interested in **Clean Vehicle Credits**. The IRA creates a new incentive for qualified commercial clean vehicles effective for vehicles acquired after December 31, 2022 (IRC Section 45W). According to Congressional Research Service, “This tax credit is 15% of a qualifying vehicle’s cost (30% if the vehicle does not have a gas- or diesel-powered internal combustion engine), limited to the incremental cost of the vehicle relative to a solely gas or diesel powered vehicle. The credit for light-duty vehicles is limited to \$7,500, while heavy-duty vehicles can qualify for tax credits of up to \$40,000. This credit could help support deployment of electric or hydrogen trucks and busses.”

#### \* Sources:

EPA. *Fast Facts on Transportation Greenhouse Gas Emissions*. <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>

*Journal of Accountancy*. *A deeper drive into the Inflation Reduction Act’s tax provisions*.

<https://www.journalofaccountancy.com/news/2022/aug/a-deeper-dive-into-inflation-reduction-acts-tax-provisions.html>

Congressional Research Service. *Clean Vehicle Tax Credits in the Inflation Reduction Act of 2022*.

<https://crsreports.congress.gov/product/pdf/IN/IN11996>



## MEMORANDUM

**To:** Scott R. Tess, Sustainability & Resilience Officer  
**FROM:** Stacy Gloss, Member, Sustainability Advisory Commission  
**DATE:** September 23, 2022  
**RE:** High-Efficiency Electric Home Rebate Program of the H.R. 5376 “Inflation Reduction Act of 2022”

### High-Efficiency Electric Homes Rebates

#### Background and Facts

The new federal energy legislation signed into law August 16, 2022, the Inflation Reduction Act of 2022 (IRA),\* represents an important milestone in U.S. energy policy. The introduced federal incentives, tax credits, and stimulus is aimed at moving the American economy away from carbon emission-based heating and cooling. The IRA helps low-income and moderate-income consumers and homeowners improve the energy efficiency of their home while moving away from fossil-based fuels for home heating, water heating, and cooking through the High-Efficiency Home Rebate Act (HEEHRA). Federal agencies including the IRS, EPA, and DOE will create the rules for distributing funds to states & states will be directly involved in implanting this program. Consumers should not go out and buy products until Illinois is ready to distribute funds.

HEEHRA designates \$4.275 billion in rebate funding to be distributed by State Energy Offices.

Qualified projects includes point-of-sale consumer rebates to enable low and moderate income households electrify their homes. heat pump HVAC systems, heat pump water heaters, electric stoves and cooktops, heat pump clothes dryers, and enabling measures such as upgrading circuit panels, insulation, air-sealing, ventilation, and wiring. Both purchase and installation costs are covered. Additional point-of-sale rebates will be available to help American families save money on monthly energy bills and reduce carbon emissions.

The bill provides the following:

- Up to \$14,000 to cover 100% of electrification costs for low-income households measured as <80% of Area Median Income\*\*
- Up to \$14,000 to cover 50% of electrification costs for moderate-income households (between 80% and 150% of Area Median Income\*\*)
- Provides rebates to multifamily buildings where 50% of residents are Low or Moderate-Income

HEEHRA Rebate Levels For Qualified Electrification Projects	
<b>Income Eligibility and % Costs Covered</b>	
<b>Low-income:</b> <80% Area Median Income (AMI) % costs covered (including installation)	<b>100%</b>
<b>Moderate-income:</b> 80-150% AMI % costs covered (including installation)	<b>50%</b>
<b>Overall Incentives</b>	
Max consumer rebate	<b>\$14,000</b>
Max contractor rebate	<b>\$500</b>
<b>Rebates for Qualified Electrification Projects</b>	
Heat pump HVAC	<b>\$8,000</b>
Heat pump water heater	<b>\$1,750</b>
Electric stove/cooktop	<b>\$840</b>
Heat pump clothes dryer	<b>\$840</b>
Breaker box	<b>\$4,000</b>
Electric wiring	<b>\$2,500</b>
Weatherization insulation, air sealing, ventilation	<b>\$1,600</b>

\* Sources:

*Rewiring America: High Efficiency Electric Home Rebate Act (HEEHRA)* <https://www.rewiringamerica.org/policy/high-efficiency-electric-home-rebate-act>

*Understanding the High Efficiency Electric Home Rebate Act:* <https://cleantecnica.com/2022/09/02/understanding-the-high-efficiency-electric-home-rebate-act-beehra/>

\*\* Current area median income for Urbana, IL is \$35,984 – 80% is \$28,787 and 150 % is \$53,976.